



10/501199
PCT/GB 2003/000096



PRIORITY DOCUMENT
SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH
RULE 17.1(a) OR (b)

The Patent Office
Concept House
Cardiff Road
Newport
South Wales
NP10 8QQ
REC'D 13 FEB 2003
WIPO PCT

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

In accordance with the rules, the words "public limited company" may be replaced by p.l.c., plc, P.L.C. or PLC.

Re-registration under the Companies Act does not constitute a new legal entity but merely subjects the company to certain additional company law rules.

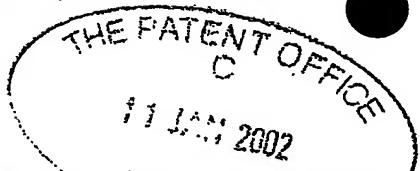
Signed

Dated

R. Mahoney

31 JAN 2003

BEST AVAILABLE COPY

**Request for grant of a patent**

See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form.

The Patent Office

 Cardiff Road
Newport
Gwent NP9 1RH

1. Your reference

GBP14103A

0200601.3

11 JAN 2002

2. Patent number
(The Patent Office will fill in this part)3. Full name, address and postcode of the or of each applicant (*underline all surnames*)
 Cosmetic Warriors Ltd
29 High Street
Poole
Dorset BH15 1AB
Patents ADP number (*if you know it*)

If the applicant is a corporate body, give the country/state of its incorporation

United Kingdom

8362523cc1

4. Title of the invention

Cosmetic Product

5. Name of your agent (*if you have one*)
 Miller Sturt Kenyon
9 John Street
London WC1N 2ES

 "Address for service" in the United Kingdom
to which all correspondence should be sent
(*including the postcode*)
Patents ADP number (*if you know it*)

07395486001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (*if you know it*) the or each application number

Country

Priority application number
(*if you know it*)Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (*Answer 'Yes' if:*
a) *any applicant named in part 3 is not an inventor, or*
b) *there is an inventor who is not named as an applicant, or*
c) *any named applicant is a corporate body.*

Yes

See note (d))

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form.
Do not count copies of the same document

Continuation sheets of this form

Description	7
Claim(s)	3
Abstract	1
Drawing(s)	2 + 2

[Handwritten signature]

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

1 ✓

Request for preliminary examination and search (*Patents Form 9/77*)

1 ✓

Request for substantive examination
(*Patents Form 10/77*)

Any other documents
(please specify)

11.

I/We request the grant of a patent on the basis of this application

[Handwritten signature]
Signature

Date

11th January 2002

12. Name and daytime telephone number of person to contact in the United Kingdom

C M Sturt 020 7242 5974

Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

Notes

- a) If you need help to fill in this form or you have any questions, please contact the Patent Office on 0645 500505.
- b) Write your answers in capital letters using black ink or you may type them.
- c) If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.
- d) If you have answered 'Yes' Patents Form 7/77 will need to be filed.
- e) Once you have filled in the form you must remember to sign and date it.
- f) For details of the fee and ways to pay please contact the Patent Office.

Cosmetic Product

The present invention relates to cosmetic products for conditioning hair.

In cosmetics, the cleansing and conditioning of the hair has been achieved by use of liquid products. Conditioning products are applied to the hair after shampooing to reduce static charge, give combability and shine. They are in a liquid state and are poured on to the hand and applied to the hair, massaged through and then rinsed away.

One conventional liquid hair conditioning product has the following formulation:

	% by weight
Water	91.0
Methyl Paraben	0.2
Propylene Glycol	5.0
Propyl Paraben	0.1
Cetearyl Alcohol (and) Sodium Lauryl Sulfate	1.8
Cetearyl Alcohol	0.7
Lanolin	0.7
Cetrimonium Bromide	0.5

Conditioners are conventionally supplied in containers made, for example, of a rigid or semi-rigid plastics material. Usually, this involves the use of a plastic container and cap to contain the product. In use the bottle may break, particularly when travelling. The container has to be disposed of after use and adds to the environmental impact packaging makes. Thus, the container adds significantly to the cost of the product and environmental pollution is caused by the disposal of empty containers.

In addition, conventional conditioners require preservatives to prevent the growth of microorganisms therein. However, such preservatives have the disadvantages of irritating users' skin and reduced biodegradability.

There is an increasing awareness of environmental issues, particularly with regard to the disposal of product packaging and the like. The present invention has been made against this background.

According to one aspect of the present invention, there is provided a cosmetic product for conditioning hair, the product having the form of a solid and comprising at least one hair conditioning ingredient.

Since the cosmetic product has the form of a solid, there is no requirement for a plastic container and there is a consequentially beneficial reduction in costs and avoidance of environmental pollution. In addition, the present invention can provide appealing novelty items.

Embodiments of the present invention will now be described in more detail and by way of further example only, with reference to the drawings, each of which shows a cross-section of a product according to the present invention.

The present invention has been made with the intention of creation a solid conditioning product, which has the same or an improved effect on the hair as a conventional liquid formulation. It has surprisingly been found that a simple mixture of some known hair conditioning ingredients, for example as included in the conventional liquid hair conditioning product above, together with emulsifying waxes and vegetable fat such as cocoa butter produces a relatively stable solid form product.

For example, the solid conditioning product of the present invention may be formulated from materials in the following ranges:

	% by weight
Coca Butter	10% - 50%
Cetearyl Alcohol (and) Sodium Lauryl Sulfate	7% - 37%
Wax	5% - 25%
Cetearyl Alcohol	2% - 5%
Cetrimonium Bromide	0.5% - 5%
Lanolin	0.5% - 5%
Propylene Glycol	10% - 71%

The first three ingredients, namely cocoa butter, cetearyl alcohol (and) sodium lauryl sulfate, and glyceryl stearate (and) PEG 100 stearate, form the solid and help condition the hair. The remaining ingredients are core ingredients of a conventional liquid conditioner, which have been made into a solid with the addition of the emulsifying waxes. Cetearyl alcohol and sodium lauryl sulfate may be used or added separately, rather than premixed in one ingredient. Similarly, glyceryl stearate and PEG 100 stearate may be used or added separately, rather than premixed in one ingredient.

Accordingly, a feature of the present invention is that conditioning ingredients of a conventional liquid conditioner are mixed with at least one other ingredient, preferably cocoa butter and emulsifying waxes, which solidify the product.

Thus, one example of a conditioning product according to the present invention may be formulated as follows:

	% by weight
Cocoa Butter	27.0
Cetearyl Alcohol (and) Sodium Lauryl Sulfate	27.0
Glyceryl Stearate (and) PEG 100 Stearate	8.5
Cetearyl Alcohol	3.0
Cetrimonium Bromide	1.5
Lanolin	1.5
Propylene Glycol	<u>31.5</u> <u>100.0</u>

From the foregoing, it can be seen that the principal ingredient of conventional liquid conditioners is water and this has the added disadvantage that lower concentrations of conditioning ingredients can be included in the conventional conditioner, so that larger volumes of conventional conditioner must be used to obtain the same conditioning effect as for a solid conditioning product in accordance with the present invention. Thus, the conventional conditioning product has the further comparative disadvantages of more expensive distribution and a correspondingly higher environmental impact.

The solid conditioning product of the present invention may have the form of a bar: it may be moulded into small shapes or it may have the form of a large cake shape, which can be cut into smaller portions. This solid system does not require chemical preservatives as the much reduced amount or absence of water prevents the growth of micro-organisms. It can be seen from the typical conventional liquid conditioning product formulation how different the solid conditioning formulation is in this respect. Moreover, the solid conditioning bar has the advantage of creating a greatly reduced impact on the environment as it does not require a plastic container. Visual impact can be made with large spectacular cakes of conditioner. Alternatively, small convenient individual shapes may convey to the customer the practical aspect of the product. The absence of conventional preservatives reduces the potential for irritation of the user. The biodegradability of the solid bar is also improved by the absence of preservatives.

In use, the bar is massaged directly onto the head or onto the hands, which are then used to apply conditioner to the hair. This delivers just the right amount of product for the desired effect. A larger bar can be cut or broken with the hands and thus small pieces of a solid bar of conditioning product can be broken off and used as required. To improve the cutting or breaking

properties of such a bar, small amounts of water can be included in the formulation, for example between 1% and 10% by weight. In this case, the above exemplary formulation will comprise between 99% and 90% by weight of the final product. Of course, such amounts of water can also be added to the small shapes if desired.

In addition, other materials such as stearic acid can be substituted for all or part of the glyceryl stearate (and) PEG 100 stearate in the formulation. As well as forming the solid, these ingredients have conditioning qualities for the hair. Other conditioning ingredients such as soya lecithin can be substituted for conditioning ingredients like lanolin. Herbs, fruits and/or vegetables can be combined to give different qualities to the final formulation and can vary between 5% to 25% by weight of the final product. Small amounts of additives may be included, such as a fragrance and/or colorant.

One example of the relative ratios of the components is given above. These ratios and the ingredients themselves can of course be varied, the requirement being only that a useable solid form hair conditioning product results.

Liquid formulations of shampoo with conditioning properties have been in existence for some years. However, a solid form of this type of product is hitherto unknown. A solid shampoo formulation with the solid conditioning bar formulation can be combined to create a bar having the effect of washing and conditioning the hair in one application without requiring the use of two separate products. This has all the advantages of the conditioning bar, including no packaging and no preservatives. Similarly, the shampoo and conditioning bar of the present invention can be moulded into small individual shapes or large cakes which can be cut into individual portions.

The proportion of shampoo material compared to the amount of conditioning material is variable. Dry hair would benefit from a greater amount of conditioner. Flat, fine hair would be washed and conditioned more successfully with a smaller proportion of conditioner to shampoo material.

A basic proportion of 50:50 shampoo to conditioner is given in the following example. However, this proportion may have the range of 30-70% by weight of conditioner and 70-30% by weight of shampoo.

Example of a Shampoo and Conditioning Bar

Shampoo	% by weight
---------	-------------

Sodium Lauryl Sulfate	48.5
Cocamide D.E.A.	1.5

Conditioner

Cocoa Butter	13.5
Cetearyl Alcohol (and) Sodium Lauryl Sulfate	13.5
Glyceryl Stearate (and) PEG 100 Stearate	4.3
Cetearyl Alcohol	1.5
Cetrimonium Bromide	0.75
Lanolin	0.75
Propylene Glycol	<u>15.7</u>
	<u>100.0</u>

The range of percentages for this type of product reflects the proportion of shampoo to conditioner. However, the proportion of ingredients in the conditioner varies in the same way as in the conditioning bar.

Ideally, the distribution of the conditioner and the shampoo in the bar enables the user to apply both to the hair at the same time. The arrangement of the two phases may be as shown in figures 1 to 3, each of which shows a shape 3 of solid shampoo and conditioner.

As figures 1 and 2 show, the shampoo 2 or alternatively the conditioner 1 can form the middle of the bar 3. As figure 3 shows, patterns such as a spiral may be formed through the bar with one or the other of the phases. It is also possible to merge the two formulations together to form a homogenous mixture. The bars may be in small individual shapes or large cakes which can be cut into smaller portions.

Of course the general aesthetic appeal and marketing possibilities of such a combined solid shampoo and conditioning product, as well as the other features, are the same as for the solid conditioning product alone.

CLAIMS

1. A cosmetic product for conditioning hair, the product having the form of a solid and comprising at least one hair conditioning ingredient.
2. A cosmetic product according to claim 1, further comprising at least one solidifying ingredient.
3. A cosmetic product according to claim 2, wherein the at least one solidifying ingredient comprises at least one of glyceryl stearate, PEG 100 stearate and stearic acid.
4. A cosmetic product according to claim 3, prepared from a mixture including 5% to 25% by weight of at least one of glyceryl stearate, PEG 100 stearate and stearic acid.
5. A cosmetic product according to any one of claims 2 to 4, wherein the at least one solidifying ingredient comprises cocoa butter.
6. A cosmetic product according to claim 5, prepared from a mixture including 10% to 50% by weight of the cocoa butter.
7. A cosmetic product according to any one of claims 2 to 6, wherein the at least one solidifying ingredient comprises cetearyl alcohol and sodium lauryl sulfate.

8. A cosmetic product according to claim 7, prepared from a mixture including 7% to 37% by weight of cetearyl alcohol and sodium lauryl sulfate.

9. A cosmetic product according to any one of claims 2 to 8, wherein the at least one solidifying ingredient is also a hair conditioning ingredient.

10. A cosmetic product according to any one of the preceding claims, wherein the at least one conditioning ingredient comprises at least one of propylene glycol, cetearyl alcohol, sodium lauryl sulfate, lanolin, soya lecithin and cetrimonium bromide.

11. A cosmetic product according to any one of the preceding claims, further comprising 1% to 10% by weight of water.

12. A cosmetic product according to any one of the preceding claims, further comprising 5% to 25% by weight of at least one of herbs, fruits and vegetables.

13. A solid hair treatment product, comprising a shampoo and a cosmetic product according to any one of the preceding claims.

14. A solid hair treatment product according to claim 13, comprising substantially 30% to 70% by weight of the shampoo and 70% to 30% by weight of the cosmetic product.

15. A solid hair treatment product according to claim 13 or claim 14, wherein the cosmetic product is substantially surrounded by the shampoo.

16. A solid hair treatment product according to claim 13 or claim 14, wherein the shampoo is substantially surrounded by the cosmetic product.

17. A solid hair treatment product according to any one of claims 13 to 16, wherein the cosmetic product and the shampoo form a pattern.

ABSTRACT**Cosmetic Product**

A cosmetic product (1) for conditioning hair, the cosmetic product having the form of a solid and comprising at least one hair conditioning ingredient. Cocoa butter, cetearyl alcohol (and) sodium lauryl sulfate and glyceryl stearate (and) PEG 100 stearate are used to form the solid and the at least one hair conditioning ingredient is a known hair conditioning ingredient, such as lanolin and cetearyl alcohol. The solid cosmetic product may be combined in a bar or a small shape (3) with shampoo (2).

FIG. 3

1/2

FIG 1

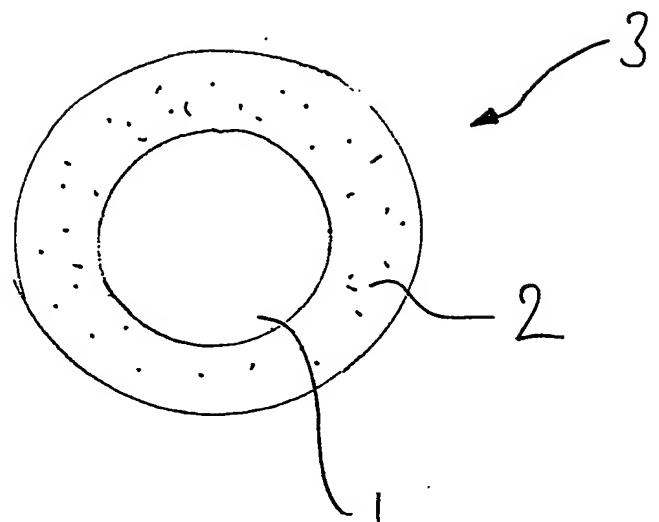
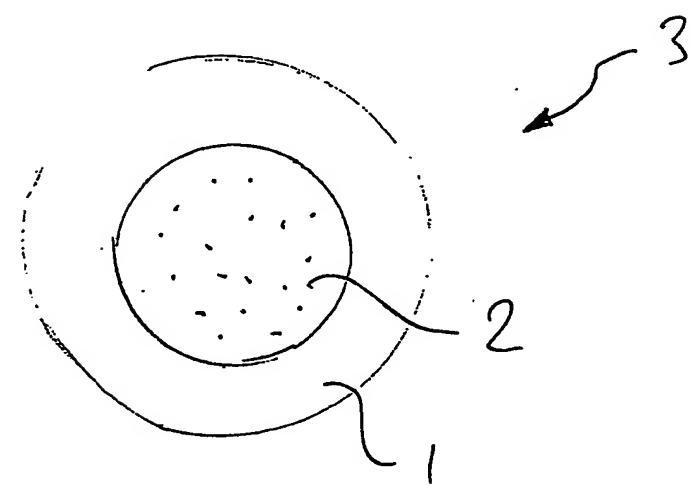


FIG 2



2/2

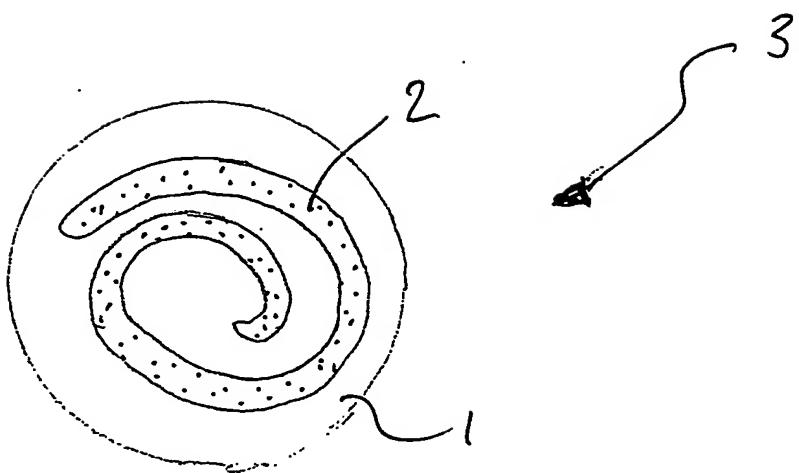
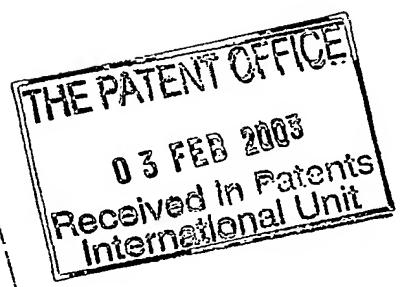


FIG 3

PCT/GB2003/000096

13/11/03

Sean Stitt



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.